

## CLAIMS

We claim:

5 ~~Sub B1~~ In a non-solid structural polyurethane adhesive composition comprising a polyurethane prepolymer reaction product of a polyisocyanate and a polyol composition and a curative for isocyanate groups, the improvement which comprises a polyurethane prepolymer reaction product consisting essentially of at least 80 wt% perfect prepolymers and less than 2 wt% free polyisocyanate monomer.

10 2. The structural adhesive of Claim 1 in which the polyurethane prepolymer reaction product consists essentially of at least 90 wt% perfect prepolymers.

3. The structural adhesive of Claim 1 in which the polyurethane prepolymer reaction product consists essentially of less than 0.5 wt% free polyisocyanate monomer.

15 4. The structural adhesive of Claim 1 in which the polyisocyanate is hexamethylene diisocyanate, phenylene diisocyanate, toluene diisocyanate (TDI) 4,4'-diphenyl-methane diisocyanate (MDI), isophorone diisocyanate (IPDI) or bis-(4-isocyanatocyclohexyl) methane.

5. The structural adhesive of Claim 1 in which the polyol is a polyether polyol or a polyester polyol.

6. The structural adhesive of Claim 5 in which the polyol is a polyether polyol or a polyester polyol.

TABLE 1. Summary of the data used in the study	
Study	Sample size (n)
1. <i>Study 1</i>	100
2. <i>Study 2</i>	100
3. <i>Study 3</i>	100
4. <i>Study 4</i>	100
5. <i>Study 5</i>	100
6. <i>Study 6</i>	100
7. <i>Study 7</i>	100
8. <i>Study 8</i>	100
9. <i>Study 9</i>	100
10. <i>Study 10</i>	100
11. <i>Study 11</i>	100
12. <i>Study 12</i>	100
13. <i>Study 13</i>	100
14. <i>Study 14</i>	100
15. <i>Study 15</i>	100
16. <i>Study 16</i>	100
17. <i>Study 17</i>	100
18. <i>Study 18</i>	100
19. <i>Study 19</i>	100
20. <i>Study 20</i>	100
21. <i>Study 21</i>	100
22. <i>Study 22</i>	100
23. <i>Study 23</i>	100
24. <i>Study 24</i>	100
25. <i>Study 25</i>	100
26. <i>Study 26</i>	100
27. <i>Study 27</i>	100
28. <i>Study 28</i>	100
29. <i>Study 29</i>	100
30. <i>Study 30</i>	100
31. <i>Study 31</i>	100
32. <i>Study 32</i>	100
33. <i>Study 33</i>	100
34. <i>Study 34</i>	100
35. <i>Study 35</i>	100
36. <i>Study 36</i>	100
37. <i>Study 37</i>	100
38. <i>Study 38</i>	100
39. <i>Study 39</i>	100
40. <i>Study 40</i>	100
41. <i>Study 41</i>	100
42. <i>Study 42</i>	100
43. <i>Study 43</i>	100
44. <i>Study 44</i>	100
45. <i>Study 45</i>	100
46. <i>Study 46</i>	100
47. <i>Study 47</i>	100
48. <i>Study 48</i>	100
49. <i>Study 49</i>	100
50. <i>Study 50</i>	100
51. <i>Study 51</i>	100
52. <i>Study 52</i>	100
53. <i>Study 53</i>	100
54. <i>Study 54</i>	100
55. <i>Study 55</i>	100
56. <i>Study 56</i>	100
57. <i>Study 57</i>	100
58. <i>Study 58</i>	100
59. <i>Study 59</i>	100
60. <i>Study 60</i>	100
61. <i>Study 61</i>	100
62. <i>Study 62</i>	100
63. <i>Study 63</i>	100
64. <i>Study 64</i>	100
65. <i>Study 65</i>	100
66. <i>Study 66</i>	100
67. <i>Study 67</i>	100
68. <i>Study 68</i>	100
69. <i>Study 69</i>	100
70. <i>Study 70</i>	100
71. <i>Study 71</i>	100
72. <i>Study 72</i>	100
73. <i>Study 73</i>	100
74. <i>Study 74</i>	100
75. <i>Study 75</i>	100
76. <i>Study 76</i>	100
77. <i>Study 77</i>	100
78. <i>Study 78</i>	100
79. <i>Study 79</i>	100
80. <i>Study 80</i>	100
81. <i>Study 81</i>	100
82. <i>Study 82</i>	100
83. <i>Study 83</i>	100
84. <i>Study 84</i>	100
85. <i>Study 85</i>	100
86. <i>Study 86</i>	100
87. <i>Study 87</i>	100
88. <i>Study 88</i>	100
89. <i>Study 89</i>	100
90. <i>Study 90</i>	100
91. <i>Study 91</i>	100
92. <i>Study 92</i>	100
93. <i>Study 93</i>	100
94. <i>Study 94</i>	100
95. <i>Study 95</i>	100
96. <i>Study 96</i>	100
97. <i>Study 97</i>	100
98. <i>Study 98</i>	100
99. <i>Study 99</i>	100
100. <i>Study 100</i>	100

12. The method of Claim 11 in which the polyurethane prepolymer reaction product consists essentially of at least 90 wt% perfect prepolymers.

13. The method of Claim 11 in which the polyurethane prepolymer reaction product consists essentially of less than 0.5 wt% free polyisocyanate monomer.

15 14. The method of Claim <sup>11</sup><sub>a</sub> in which the polyisocyanate is hexamethylene diisocyanate, phenylene diisocyanate, toluene diisocyanate (TDI), 4,4'-diphenylmethane diisocyanate (MDI), isophorone diisocyanate (IPDI) or bis-(4-isocyanatocyclohexyl) methane.

20 15. The method of Claim 11 in which the polyol is a polyether polyol or a polyester polyol.

16. The method of Claim 15 in which the polyol is a polyether polyol or a polyester polyol.